

## Psychological Characteristics And Entrepreneurial Intention Among Polytechnic Students In Malaysia: A Theory Of Planned Behavior Approach

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### Abstract

*The onset of global economic downturn has slightly affected the employment situation for the Malaysian Polytechnic's graduates reported by POLISAS Annual Report in 2004 (POLISAS, 2004: 32). The trend of working status for Malaysian Polytechnic Graduates from the year 2003 to 2006 where the rate of the employed for Malaysian Polytechnic graduates tend to decrease over these periods but the rate of the unemployed graduates show a trend in an increasing. The increasing unemployment rate among the Polytechnic Graduates in Malaysia is a worrying trend. For many years, the issue cropped up again and again, made the news headlines, and even hit the parliament. This may sound painful for graduates but let's face it (MoHE, 2004; 2005; 2006; 2007). The Government recognizes the importance of self-employment in employment creation. The attitude of current graduates who are seen to be too dependent on the government and private sectors for employment must be change. The inculcation of entrepreneurship values and changing the mindset as to view self-employment as a viable alternative to salaried employment has been intensified including in institutions of higher education. According to Amanat Tahun 2009 by the Minister of Higher Education, Dato' Seri Mohamed Khaled Nordin, about training, internship and entrepreneurship programmes must be encouraged to the Malaysian University Students. Basic Entrepreneurship Culture Module should be done by HEIs (IPTA) to apply high moral value and changing in mindset for graduates to become self-reliant by having entrepreneurship spirit and culture. As such, efforts have been intensified to create more business opportunities for self-employment among the graduates. Furthermore, with this skill can create working opportunities to others (MoHE, 2009). Therefore, this conceptual paper proposed the intention to be entrepreneur can be explained by Ajzen's (1985) Theory of Planned Behavior. Psychological characteristics will effect of attitudes, subjective norms, perceived behavioral control and self-efficacy. Consequently, the study predicted the entrepreneurial intention of the Malaysian Polytechnic students.*

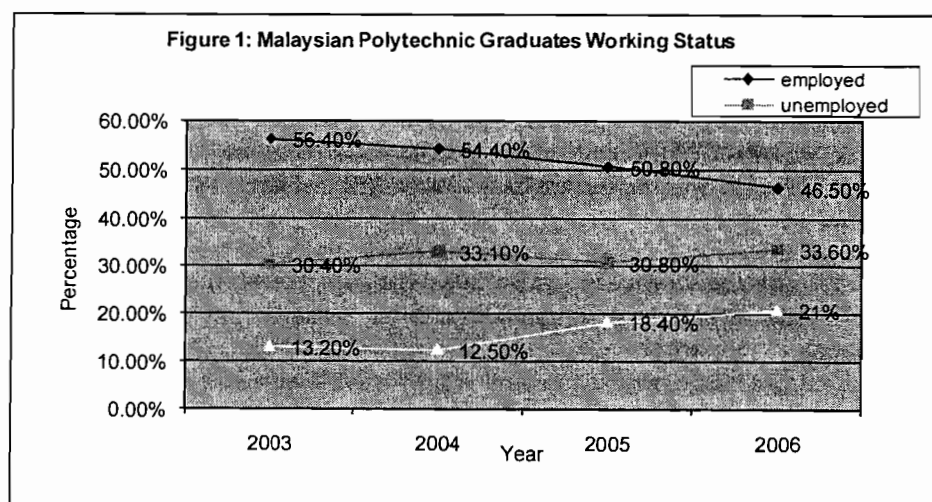
**Keywords:** *Psychological Characteristics, Entrepreneurial Intention, Theory of Planned Behavior.*

## INTRODUCTION

Unemployed graduates have become among the world major concerns lately. For instance, according to the Bank Negara Report, the total number of unemployed graduates stood at 38,800 in 2001. By 2002, the number had risen to 45,400. These numbers may be underestimated as not all the unemployed graduates registered themselves with the Ministry of Human Resource. However, they give a reasonably good indication of the situation of unemployment in the country. At the beginning of 2005, the number of unemployed graduates was reported to be 50,000 in Malaysia (The Borneo Post, February 20, 2005) and the number increased to 60,000 by the year end (The Star, Nov 6, 2005). Why are there so many graduate unemployed? And what factors lead to unemployed graduates? Hence, there is an urgent need to look into this problem. This includes the Malaysian polytechnic graduates.

The onset of global economic downturn has slightly affected the employment situation for the Polytechnic's graduates reported by POLISAS Annual Report in 2004 (POLISAS, 2004: 32). As a result a Malaysian Polytechnic Graduates Tracer Study was introduced by the Department of Polytechnic and Community College Education (DPCCE). The main objective of a Malaysian Polytechnic Graduates Tracer Study is to identify the destination and the employment rate of these graduates, evaluation on system and education quality in polytechnic and its implication upon professional development and self-personality.

According to the findings of a Malaysian Polytechnic Graduates Tracer Study in 2007, 46.5 percent of polytechnic graduates employed within six months after graduation, 33.6 percent remained unemployed six months after convocation, while 30 percent were still awaiting job placement. The study involved 22,355 respondents from 28,206 of polytechnic graduates who have graduated in June and December 2006 from 18 polytechnics all over Malaysia (MoHE, 2007). The response rate was 79 percent.

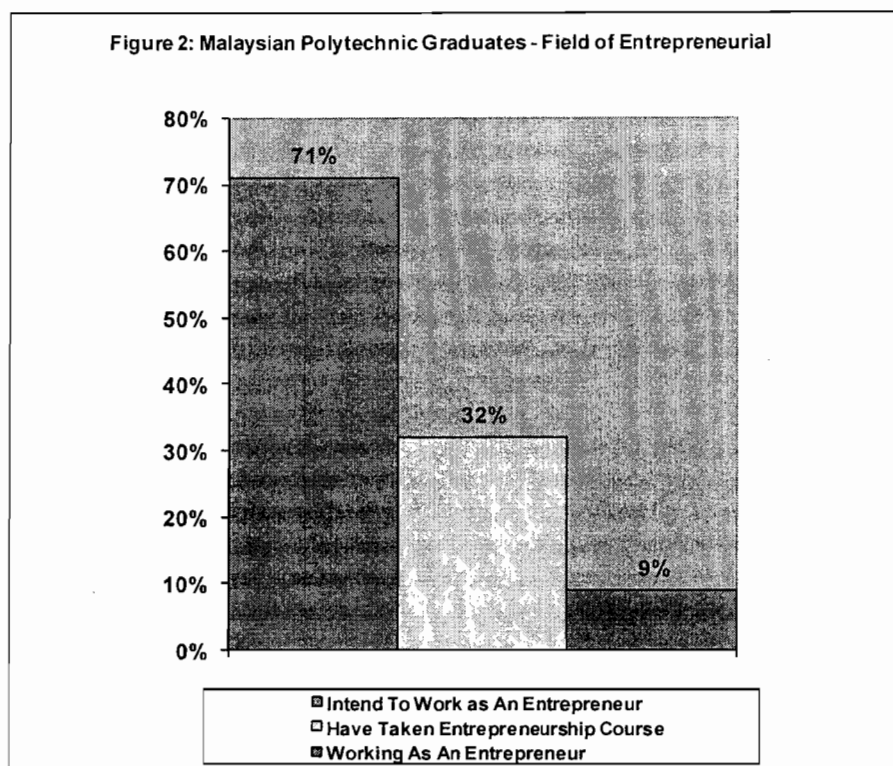


Trend of Working Status among Polytechnic Graduates in Malaysia (Data Source: Adopted from Malaysian Polytechnic Graduates Tracer Study in 2004, 2005, 2006 and 2007).

Figure 1 shows the trend of working status for Malaysian Polytechnic Graduates from the year 2003 to 2006 where the percentage of the employed for Malaysian Polytechnic graduates tend to decrease over these periods but the percentage of the unemployed graduates show a trend in an increasing, while the percentage of the graduates further studies is around 30 percent to 35 percent. The increasing unemployment rate among the Polytechnic Graduates in Malaysia is a worrying trend. For many years, the issue cropped up again and again, made the news headlines, and even hit the parliament. This may sound painful for graduates but let's face it (MoHE, 2004; 2005; 2006; 2007).

The Government recognizes the importance of self-employment in employment creation. The attitude of current graduates who are seen to be too dependent on the government and private sectors for employment must be change. The inculcation of entrepreneurship values and changing the mindset as to view self-employment as a viable alternative to salaried employment has been intensified including in institutions of higher education. As such, efforts have been intensified to create more self-employment opportunities for economic growth. Business opportunities for self-employment and entrepreneurship including in petty trading, SMEs, agriculture, and services have been promoted (MoHR, 2006). In addition, entrepreneurship training programme have been implemented by various Ministries and agencies for unemployed graduates.

According to Amanat Tahun 2009 by the Minister of Higher Education, Dato' Seri Mohamed Khaled Nordin, about training, internship and entrepreneurship programmes must be encouraged to the Malaysian University Students. Basic Entrepreneurship Culture Module should be done by HEIs (IPTA) to apply high moral value and changing in mindset for graduates to become self-reliant by having entrepreneurship spirit and culture. As such, efforts have been intensified to create more business opportunities for self-employment among the graduates. Furthermore, with this skill can create working opportunities to others (MoHE, 2009).



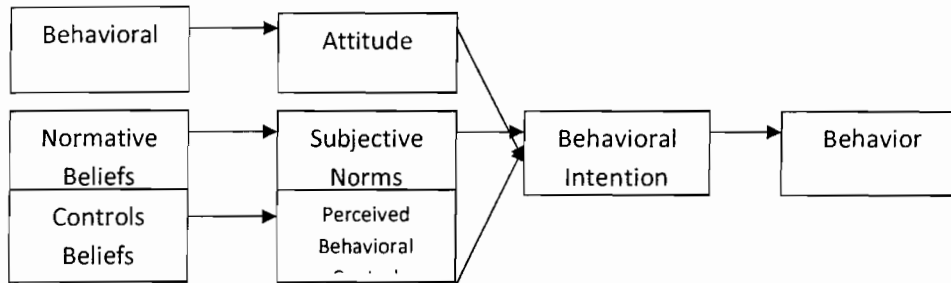
Trend of Field of Entrepreneurial (Data Source: Adopted from Malaysian Polytechnic Graduates Tracer Study in 2007).

Figure 2 represents that 71 percent from the Malaysian Polytechnic Graduates intend to work as an entrepreneur, but the percentage of the Malaysian Polytechnic Graduates have taken entrepreneurship course and show only 32 percent, while a few of them worked as an entrepreneur and the percentage is only 9 percent. It seems that greater interest of Malaysian Polytechnic Graduates intend to become entrepreneurs, but only a few of them have revealed entrepreneurship course by Malaysian Polytechnic Institutions.

Participation of Malaysian Polytechnic graduates as an entrepreneur are small. Therefore, base on that statement, this conceptual paper proposed the intention to be entrepreneur can be explained by Ajzen's (1985) Theory of Planned Behavior. The objective of this study is to propose a framework Theory of Planned Behavior in understanding the content of an entrepreneurial intention among polytechnic students in Malaysia. Additionally, psychological characteristics will effect of attitudes, subjective norms, perceived behavioral control and self-efficacy. As a result, the study predicted the entrepreneurial intention of the Malaysian Polytechnic students.

## LITERATURE REVIEW

Figure 3: Theory of Planned Behavior (TPB)



The Theory of Planned Behavior (Ajzen, 1985)

### *The Theory of Planned Behaviour*

The theory of planned behavior is the extension of the theory reasoned action (Ajzen and Fishbein, 1975). The theory of reasoned action which was grounded in various theories of attitude such as Learning Theories, Expectancy-Value Theories, Consistency Theories, and Attribution Theory (Ajzen and Fishbein, 1975). According to the Theory of Reason Action, if people evaluated the suggested behaviour as positive (attitude), and if they think their significant others wanted them to perform the behaviour (subjective norms), this result in a higher intention (motivation) and they are more likely to do so. A high correlation of attitudes and subjective norms to behavioural intention, and subsequently to behaviour has been confirm in many studies (Sheppard, Hartwick and Warshaw, 1988).

In addition to attitudes and subjective norms (which make the Theory of Reason Action), the Theory of Planned Behavior add the concept perceived behavioral control, which originates from Self-Efficacy Theory. Theory of Planned Behavior, based on social psychology, based on the premise that all human behavior is planned and because it is preceded by the intention of the behavior (Fishbein and Ajzen 1975). The main variable in this theory is the intention. As studied by Bird (1988), intention represents the belief that an individual will perform the behavior, the belief he will serve.

In the theory of planned behavior, intentions is a function of the device three factors: attitude, subjective norms, and perceived behaviour control.

### *Attitudes*

Attitudes are defined by Ajzen (1991), as the beliefs and perceptions about the willingness to personal behavior, which in turn related to expectations about the impact of personal decisions as a result of behaviour. It can be said that attitudes have a wide range of personality and indirect impact on certain behavior, the influence of several factors more closely associated with the behavior in question (Ajzen, 1991). According to these models, people's evaluation of, or attitudes toward behaviour are determined by the total set of accessible behavioral beliefs, where belief is based on the subjective probability that the behaviour will produce a given outcome. Study by Kolvereid

(1996) and Ajzen (2002), attitude refers to the degree to which the individual holds or negative personal valuation about being an entrepreneur.

### ***Subjective Norms***

Subjective norms, or perceived social norms are defined as the perceived perception about individual values, confidence, and norms held by those who they think are important respect or individual desire to comply with the norms. An individual's perception of social normative pressures, or relevant other's beliefs that he or she should or should not perform such behavior (Ajzen, 1991); i.e, subject's perception of other nations opinion of the proposed behavior. According to Ajzen (1991), perceived social norms would measure the perceived social pressure to carry out or not to carry out that entrepreneur behaviour. For a particular purpose, it would refer to the perception that "reference people" would approve of the decision to become an entrepreneur, or not.

### ***Perceived Behavioral Control***

Perceived behavioural control is defined as personal confidence about the ability to plan and implement behavior perception that behavior in the decision-making control. An individual's perceived ease or difficulty to maintain the behavior (Ajzen, 1991). It would include the perception that easiness or difficulty in the fulfilment of the behaviour of interest to become an entrepreneur. This concept is introduced into the theory of planned behavior to accommodate elements nonvolitional stick, at least potentially, in all behavior (Ajzen, 2002). Krueger and Dickson (1994) show us that increased of perceived behavioral control increases the perception of opportunity.

### ***Self-Efficacy***

The concept of self-efficacy is rooted in Bandura (1977)'s social cognitive theory. Perceived self-efficacy refers to the community about their ability to exercise control over their own level of functioning and events that affect their lives (Bandura, 1991). We can see that, according to this definition, the self-efficacy is control over the behavior itself, not about control over outcomes or events. The concept of self-efficacy is used as perceived behavioral control, which means the perception of the ease or difficulty of the particular behavior. It is linked to control beliefs, which refers to belief's about the presence of factors that may facilitate or impede performance of the behaviour.

### ***Entrepreneurial Intention***

A long tradition of research is intended to questions about why some people choose to become self-employed and start their own business and others who are more likely to find traditional wage or salary employment. If we are concerned about how the entrepreneurs appear, it cannot be too surprising to see the extent of interest in important prerequisite to facilitate or prevent the emergence of this (eg Krueger 2000).

Since the decision to become an entrepreneur can be considered reasonable as voluntary and conscious (Krueger et al., 2000), it seems reasonable to analyze how the decision was taken. A number of conceptual models structure the various factors that influence this process (for example, Bygrave 1989, Moore 1986). Although not specifically developed for students, they might explain

their purpose and intent of entrepreneurship of any other people. Most of the approaches to distinguish between internal and external (environmental) factors.

Less common definition of entrepreneurship, it is the job of researchers to define clearly the meanings they associate with the term (Gartner 1989; 1990). Entrepreneurship can be viewed as a process that occurs over time (Gartner et al, 1994; Kyro and Carrier, 2005). Because entrepreneurship occur from time to time (Gartner et al. 1994), entrepreneurial intentions will be seen as a first step in the development, long-term fit. In this understanding, entrepreneurial intentions will be the first step in developing and sometimes download from long-term business creation (Lee and Wong, 2004). For the purpose of start-up, then, will be the first decisive element of entrepreneurial behavior (Kolvereid, 1996; Fayolle and Gailly, 2004). In addition, intention to behave will be one of the best predictive tool behavior (Fishbein and Ajzen 1975, Ajzen, 1991, 2001).

Studies on the behavior of intention has a rich history in psychology (eg, Ajzen and Fishbein 1980), and is beginning to appear in both conceptual (Bird, 1988; Katz and Gartner 1988; Krueger and Brazeal 1994) and empirical (Brenner, Pringle, and Greenhaus 1991; Krueger 1993a, 1993b; Scott and Twomey 1988) study of entrepreneurship. Krueger (1993b) considers that entrepreneurial intentions are central to understanding entrepreneurship fit because they form the new organization's policies.

### **Psychological Characteristics**

Only the three major variables of the psychological characteristics – need for achievement, locus of control and also self-confidence were focused in the following discussion. Similarly, Robinson *et al.* (1991) have listed locus of control, need for achievement, and self-confidence as entrepreneurial attitudes. Need for achievement by McClelland (1961) and locus of control by Rotter (1966) are among the characteristics that have received the most attention in the entrepreneurship literature (Shaver and Scott, 1991). Further, need for achievement and internal locus of control have both been recognised as factors that work together to increase student success (Cooke et al., 1995).

### ***Need for Achievement***

In the early to mid-1960s (McClelland, 1961) suggested that the key to entrepreneurial behaviour lie in achievement motivation. While study by Murray (1938) revealed the need for achievement as a basic need that influences behaviour. Consequently, the need for achievement theory of McClelland (1961) is one of the most applied theories on entrepreneurship. The high need for achievement are key characteristics of entrepreneurship (McClelland, 1961; Osborne, 2003) and recognized leadership characteristics of entrepreneurs (Czarniawska-Joerges & Wolff, 1991; Lupkin, & Dess, 1996). He concludes that a high need for achievement drives people to become successful entrepreneurs (Davidson, 1995; Moorman and Halloran, 1993; McClelland, 1961).

McClelland establish the first building in the entrepreneurship literature by positing that a high need for achievement predisposes young people to find entrepreneurial positions to achieve better performance satisfaction that can be derived from other types of position ( Entrialgo et al., 2000; Stewart et al., 2003). Therefore some empirical support for the idea that entrepreneurs have a stronger motive to achieve compared to non-entrepreneurs. Various comparative studies conducted among entrepreneurs and non-entrepreneurs, the finding shows that the need for achievement has a more significant relation with entrepreneurship than other psychological characteristics (Littunen,

2000; Hansemark, 1998; Scott, 1998). Individuals who have a strong need to achieve are among those who want to solve their own problems, set goals and strive to achieve these targets through their own efforts, showed higher performance in tasks that challenge and innovative in finding meaning for new and better ways to improve their performance (Littunen, 2000; Utsch and Rauch, 2000).

McClelland (1961) proved that people in high need for achievement has five critical characteristics. First, high-achievers like the situations such as where they can take personal responsibility for finding solutions to problems (Sexton and Smilor, 1986). Second, as claimed by Chell, Haworth and Brearley (1991), high achievers like such as fast enter on their performance so they can assess whether they improve or not. Third, high-achievers avoid what they consider to be very easy or very difficult task, and they do not like successful by chance (Chell, Haworth and Brearley, 1991). Fourth, they prefer to work to achieve the target, which represents both a challenge, and not outside of their ability (Chell, Haworth and Brearley, 1991). Finally, Sexton and Smilor (1986), attracted to the outstanding quality concrete knowledge (money as a measure of success) of the results of their decisions.

### ***Locus of Control***

Another research psychological characteristic closely related to the concept of a high need for achievement is the belief in an internal locus of control. Locus of control as studied by Leone and Burns (2000) is a psychological characteristic that is related to the generalized expectations of a person on whether he/she will be able to control the events in life. Individual who are reluctant in believing in their ability to control the environment though their actions, would also be expected to be reluctant to assume the risks that starting a business entails (Mueller and Thomas, 2000; Chen, Greene, and Crick, 1998; Sexton and Smilor, 1986).

Rotter believed that the need for achievement is related to the belief of internal locus of control (Rotter, 1966). People with an internal locus of control are those individuals who also believe themselves to be in control of their destiny (Chell, and colleagues, 1991). According to Rotter (1996) individuals vary in terms of how much personal responsibility they perceive and accept for their behavior and its consequences. Rotter (1966) refers to an entrepreneur as a person with a high internal locus of control. Individuals with an internal locus of control believe they personally control events and consequences in their lives (Koh, 1996; Riipinen, 1994; Hansemark, 1998). Brockhaus and Nord found that entrepreneurs were more internal in their locus of control beliefs (Kent and Sexton, 1982).

Individuals with an external locus of control also believe circumstances beyond their immediate control such as luck, fate and other people affect their performance across a range of activities. In contrast, people with an external locus of control sense that fate, in the form of chance events outside their control, or powerful people, has a dominating influence over their lives (Chell and Colleagues, 1991). Rotter hypothesized that individuals with internal beliefs would more likely strive for achievement than would individuals with external beliefs.

Some of the research raises the question of whether an entrepreneur's personality is affected by experience (Littunen, 2000; Morrison, 2001; McCarthy, 2000). McCarthy's illustrates the role of crisis on strategic planning and risk-taking. Entrepreneurs tend to have a higher locus of control after a crisis situation, especially if they have come through the crisis in a stronger position. However, a



high locus of control sometimes is the cause of crisis resulting in the stifling of innovation and a resistance to change.

Entrepreneurs searching for new opportunities and taking an innovative attitude are also expected to have the capability to control the events in their lives, or, in other words, have locus of inner control. Many studies on the subject have verified this expectation (Mueller and Thomas, 2000; Hansemark, 1998; Koh, 1996; Utsch and Rauch, 2000). For example, Gilad (1982) was able to use locus of control to distinguish successful and unsuccessful small business owners (Engle et al., 1997).

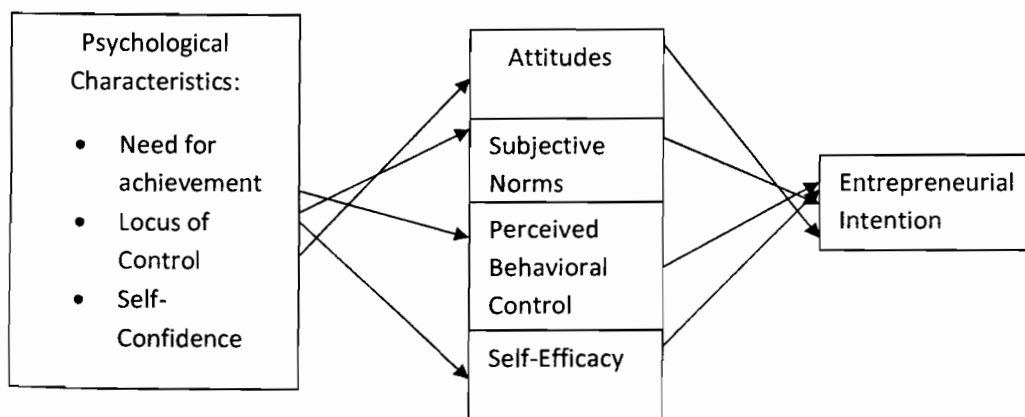
### ***Self-Confidence***

According to Cromie (2000), perhaps self-confidence is an outcome rather than a determinant of entrepreneurship. In the literature on entrepreneurship, it is stated that entrepreneurs demonstrate a higher degree of self-esteem with respect to others (Koh, 1996; Robinson et al., 1991). It can be expected that the entrepreneur must believe that he is able to achieve the goals that are set (Koh, 1996). Further, an entrepreneur is expected to have a perceived sense of self-esteem and competence in conjunction with his business affairs (Robinson et al., 1991a).

Empirical studies in the entrepreneurship literature have found entrepreneurs to have a higher degree of self-confidence relative to non-entrepreneurs (Ho and Koh, 1992, Robinson et al., 1991a). According to some writers, successful owner/managers have been identified with a personal value type referred as entrepreneurial (Cunningham & Lischeron, 1991). Feather (1988) only refers to successful owner/managers as those who have entrepreneurial characteristics.

Ho and Koh (1992) have suggested that self-confidence is a necessary entrepreneurial characteristic and that it is related to other psychological characteristics. Many recent studies have focused on the relationship between the locus of control and an entrepreneur's level of self-efficacy (Chen, Greene, and Crick, 1998; Littunen, 2000; Luthans, Stakovic, and Ibrayeva, 2000; Utsch, Rauch, Rothfufs, and Frese). This research indicates that in addition to having a high locus of control, it is important for potential entrepreneurs to develop a strong sense of self-efficacy to insure that they follow through with their intentions.

### **THEORETICAL FRAMEWORK**



**Proposition**

Based on the theoretical discussion and findings of past studies, the following propositions are presented:

Proposition 1: The psychological characteristics is expected to influence entrepreneurial intention.

Proposition 2: The psychological characteristics is expected to influence attitude.

Proposition 3: The psychological characteristics is expected to influence subjective norms.

Proposition 4: The psychological characteristics is expected to influence perceived behavioural control.

Proposition 5: The psychological characteristics is expected to influence self-efficacy.

Proposition 6: The psychological characteristics is expected to influence attitude which then leads to influence the intention to be an entrepreneur.

Proposition 7: The psychological characteristics is expected to influence subjective norms which then leads to influence the intention to be an entrepreneur.

Proposition 8: The psychological characteristics is expected to influence perceived behavioural control which then leads to influence the intention to be an entrepreneur.

Proposition 9: The psychological characteristics is expected to influence self-efficacy which then leads to influence the intention to be an entrepreneur.

**CONCLUSION**

With regard to issue disregard additional variables outside of Theory of Planned Behavior that might explain entrepreneurial intention, additional variables such as psychological characteristics do enhance our understanding of entrepreneurial intention. However, we assume that the effect of this variable is mediated by the components of Theory of Plan Behavior in influencing entrepreneurial intention. The effect of this variable on entrepreneurial intention is indeed only indirect. For example, studied by Schmitt-Rodermund (2004) showed that the parental style and psychological characteristics do influence entrepreneurial competence, a construct closely related to perceived behaviour control in the context of entrepreneurship. Possessing the entrepreneurial characteristics will benefit polytechnic students in Malaysia to be entrepreneur when they were graduated. According to Dato' Mustapa Mohamed, entrepreneurship was an important field of study to produce students who were not only independent but also with high motivation (Bernama, Nov 29, 2006). If polytechnic graduates were exposed to entrepreneurial profession during their studies in polytechnic, most likely they will be able to be more independent and start their own small business somehow. This is because the national economy keeps on developing and requires more new entrepreneurs who are willing to create new business models.

Entrepreneurial is a profession becoming more popular in the era of knowledge-based economy. As studied by Sivapalan (2001) argued that without entrepreneurs, there is no knowledge economy. Realising the importance of entrepreneurs in the development of the knowledge-based economy in Malaysia, efforts have been taken to nurture entrepreneurship in all ways. In helping the nurture of polytechnic students who have high entrepreneur tendencies, the psychological characteristics which were influenced by Theory of Planned Behavior can be used to assess students' entrepreneurial intention. For example, as studied by Ab. Aziz and Zakaria (2004), Dunn (2004), and Mohd Salleh et al. (2005) found that the internal locus of control to be a stimulus to a positive attitude towards entrepreneurship. Attitude based on internal locus of control has a positive impact on choosing career in entrepreneurship. Further, studied by Sodri Ariffin and Ahmad Shafee (2002) said that monetary value as a factor that steers individuals into entrepreneurship. Monetary value based on

perceived behaviour control also has a positive impact to the students to become entrepreneur. On a whole, Theory of Planned Behaviour plays an important role in motivating individuals to exhibit behaviour in choosing entrepreneurship as a career.

An urgent need to enhance students need for achievement, locus of control and self-confidence which in turn leads to influence the entrepreneurial intention. In addition, the needs to be a concerted effort by the Department of Polytechnic and College Community Education (DPCCE) authorities to enhance the entrepreneurial intention of polytechnic students such as seminars, conferences, short courses and training on entrepreneurship along with the formal entrepreneurship education offered by Polytechnic Institutions in Malaysia. A study by Kolvereid and Moen (1997) showed that as compared to other students, those who have taken a major in entrepreneurship have revealed greater interest to become entrepreneurs and these students act more entrepreneurial than other students in taking up the challenge to start up a new business.

Those who have attended courses and training on entrepreneurship have indicated significantly higher entrepreneurial intention. It is shown that students who participated in entrepreneurship programme were more likely to start their own business than other students (Webb, *et. al.*, 1982). At this point to the relevance of entrepreneurship as a subject in the polytechnic curricula. Another study done by Clarke (1990) and Menzies and Paradi (1999) have pointed out that entrepreneurship education, especially education that provides technological training, is crucial to enhance entrepreneurs' innovation skills in an increasingly challenging environment. On this basis this researcher intended to nurture entrepreneurial potential in the students of polytechnic especially those technical student in polytechnic. The DPCCE should take the approach that the entrepreneurship course should be taught widely in campus and not only for the students at the Department of Commerce. To widen the scope of career choices for graduates to become entrepreneur, the DPCCE need to change the polytechnic education system which were using in the Malaysian Polytechnic Institution.

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